

antibody, a hybrid antibody, and a single chain antibody, which specifically binds an isolated and purified peptide comprising an amino acid sequence which consists essentially of Gly-Met-Asn-Leu-Thr-Trp-Tyr-Arg-Glu-Ser-Lys (SEQ ID NO:5), or a variant thereof, wherein the variant comprises an amino acid substitution at amino acid position number 5, 6, or both 5 and 6.

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27. (Three Times Amended) A specific binding protein selected from the group consisting of a monoclonal antibody, a polyclonal antibody, an antigen-binding fragment of a monoclonal antibody, an antigen-binding fragment of a polyclonal antibody, a hybrid antibody, and a single chain antibody, which is raised to a multiply antigenic peptide comprising multiple copies of an isolated and purified peptide which consists essentially of SEQ ID NO:4, SEQ ID NO:5, or both SEQ ID NO:4 and SEQ ID NO:5.

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34. (Three Times Amended) A specific binding protein selected from the group consisting of a monoclonal antibody, a polyclonal antibody, an antigen-binding fragment of a monoclonal antibody, an antigen-binding fragment of a polyclonal antibody, a hybrid antibody, and a single chain antibody, which is raised to a recombinant plant virus particle comprising at least one copy of an isolated and purified peptide consisting essentially of SEQ ID NO:4, SEQ ID NO:5, or both SEQ ID NO:4 and SEQ ID NO:5.

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41. (Amended) A monoclonal antibody produced by hybridoma 8H.8 having ATCC accession number PTA-4597.

43. (Three Times Amended) A specific binding protein selected from the group consisting of a monoclonal antibody, a polyclonal antibody, an antigen-binding fragment of a monoclonal antibody, an antigen-binding fragment of a polyclonal antibody, a hybrid antibody, and a single chain antibody, which specifically binds to an epitope bound by the antibody of claim 41.

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Please add the following new claims:

116. A specific binding protein selected from the group consisting of a monoclonal antibody, a polyclonal antibody, an antigen-binding fragment of a monoclonal antibody, an antigen-binding fragment of a polyclonal antibody, a hybrid antibody, and a single chain antibody, which specifically binds to an isolated and purified peptide consisting essentially of SEQ ID NO:39.

G8

117. A specific binding protein selected from the group consisting of a monoclonal antibody, a polyclonal antibody, an antigen-binding fragment of a monoclonal antibody, an antigen-binding fragment of a polyclonal antibody, a hybrid antibody, and a single chain antibody which specifically binds an isolated and purified peptide comprising an amino acid sequence which consists essentially of